



# UNITED STATES PATENT AND TRADEMARK OFFICE

*Handwritten signature/initials*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,228	12/21/2001	Stephan Walter Gehring	202102 0272220	3490

22242 7590 07/26/2006

FITCH EVEN TABIN AND FLANNERY  
120 SOUTH LA SALLE STREET  
SUITE 1600  
CHICAGO, IL 60603-3406

EXAMINER
----------

PARTHASARATHY, PRAMILA

ART UNIT	PAPER NUMBER
----------	--------------

2136

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/032,228

Applicant(s)

GEHRING ET AL.

Examiner

Pramila Parthasarathy

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-23, 25-34, 36-68, 70-78 and 80-93 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-23, 25-34, 36-68, 70-78, 80-93 is/are rejected.
- 7) ☒ Claim(s) 4-7, 50-55 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***DETAILED ACTION***

1. This action is in response to request for reconsideration filed on July 05, 2006. Claims 1-12, 14-23, 25-34, 36-68, 70-78 and 80-93 are pending.

***Claim Rejections - 35 USC § 112***

2. Applicant's arguments, see Pages 3-4, filed July 05, 2006, and in view of the interview held on 6/29/2006, have been fully considered and are persuasive. The 35 USC 112 rejection of Claims 1-12, 14-23, 25-34 and 36-57 has been withdrawn.

***Response to Arguments***

3. Applicant's arguments, see Pages 5-7, filed 7/5/06, with respect to the rejection(s) of claim(s) 1-12, 14-23, 25-34, 36-68, 70-78 and 80-93 under 35 USC 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Abdo et al. (2002/0080967). Abdo et al. ("Abdo", hereafter) teaches a method and apparatus for securely connecting one or more wireless peripheral devices and one or more host systems, the secure connection reducing the vulnerability of wireless communications between the wireless peripheral device and a host system to accidental or malicious interference or eavesdropping.

Regarding independent Claim 1, Applicant argues prior art fails to disclose “a radio that transmits a message containing a first encryption key that is encrypted with a second encryption key over the wireless network, the subsequent message encrypted with the first encryption key”, see remarks (7/5/06) page 5.

With respect to “a radio that transmits a message containing a first encryption key that is encrypted with a second encryption key over the wireless network, the subsequent message encrypted with the first encryption key”, Examiner points to the actual claim language, ““a radio configured to transmit the message over a wireless network and configured to receive a subsequent message over the wireless network, the subsequent **message encrypted with the first encryption key**” as recited in Claim 1 (emphasis added) and directs to Abdo Summary and paragraphs [0026-0029], wherein Abdo discloses that a wireless device includes both a transmitter and a receiver (111) which transmit a message encrypted using an encryption key.

Regarding independent Claims 12, 23 and 34, Applicant argues prior art fails to disclose “receiving any encrypted subsequent message back to the transmitting device from the receiving device”, see remarks (7/5/06) page 6.

With respect to “receiving any encrypted subsequent message back to the transmitting device from the receiving device”, Examiner points to the actual claim language, “**receiving at a module**, a subsequent message encrypted with the first encryption key” as recited, for example, in Claim 12 (emphasis added) and directs to Abdo Summary and paragraphs [0064-0065], wherein Abdo discloses that upon

receiving the encrypted message, encryption key is retrieved from memory and the encrypted message is decrypted.

Regarding independent Claim 47, Applicant argues prior art fails to disclose "receiving devices that receive encrypted message containing an encryption key and that transmit subsequent messages using the decrypted encryption key and that transmit subsequent messages using the decrypted encryption key back to the transmitted device", see remarks (7/5/06) page 6.

With respect to "receiving devices that receive encrypted message containing an encryption key and that transmit subsequent messages using the decrypted encryption key and that transmit subsequent messages using the decrypted encryption key back to the transmitted device", Examiner points to the actual claim language, "a radio configured to receive a message over a wireless network from a host and to transmit a subsequent message over the wireless network, the received message encoded with the first encryption key and containing a second encryption key, the subsequent message encrypted with the second encryption key" as recited (emphasis added) and directs to Abdo Summary and paragraphs [0064, 0080-0081], wherein Abdo discloses that the user enters the encrypted key (provided by the host) and the receiving device decrypts the encrypted message to obtain encryption key whereby the subsequent messages are encrypted with the second encryption key. Furthermore, Abdo discloses that the communications between a wireless device and a host system is bi-directional wherein all the messages transmitted/received are encrypted using a symmetric key.

Regarding independent Claims 58, 67, and 76, Applicant argues prior art fails to disclose “receiving devices that receive encrypted message containing an encryption key and that transmit messages using the decrypted encryption key back to the transmitted device”, see remarks (7/5/06) page 7.

With respect to “receiving devices that receive encrypted message containing an encryption key and that transmit subsequent messages using the decrypted encryption key and that transmit subsequent messages using the decrypted encryption key back to the transmitted device”, Examiner points to the actual claim language, “receiving a message over a wireless network from a host, the message encoded with a first encryption key and containing a second encryption key” as recited (emphasis added) and directs to Abdo Summary and paragraphs [0064, 0080-0081], wherein Abdo discloses that the user enters the encrypted key (provided by the host) and the receiving device decrypts the encrypted message to obtain encryption key whereby the subsequent messages are encrypted with the second encryption key. Furthermore, Abdo discloses that the communications between a wireless device and a host system is bi-directional wherein all the messages transmitted/received are encrypted using a symmetric key.

The dependent claims 2-11, 14-22, 25-33, 36-46, 48-57, 59, 60-66, 69, 70-75 and 80-93 are rejected at least by virtue of their dependency on the dependent claims.

***Allowable Subject Matter***

4. Claims 4 – 7 and 50 – 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 8-12, 14-23, 25-34, 36-49, 56 – 68, 70-78 and 80-93 are rejected under 35 U.S.C. 102(e) as being anticipated by Abdo et al. (U.S. Publication Number: 2002/0141591).

Regarding Claim 1, Abdo teaches and describes  
a first encryption key storage unit configured to store a first encryption key  
(Summary and paragraphs [0026-0029]);  
a second encryption key storage unit configured to contain a second encryption  
key (Summary and paragraphs [0026-0029]);

an encryption unit configured to encrypt a message containing a first encryption key, the message encrypted with the second encryption key (Summary and paragraphs [0026-0029]);

a radio configured to transmit the message over a wireless network and configured to receive a subsequent message over the wireless network, the subsequent message encrypted with the first encryption key (Summary and paragraphs [0026-0029]).

Regarding Claims 12, 23 and 34, Abdo teaches and describes receiving, at a module, a second encryption key (Summary and paragraphs [0026-0029]);

transmitting, from the module, a message containing a first encryption key over a wireless network the message encrypted with the second encryption key (Summary and paragraphs [0026-0029]); and

receiving, at a module, a subsequent message encrypted with the first encryption key (Summary and paragraphs [0026-0029]).

Regarding Claim 47, Abdo teaches and describes a first encryption key storage unit configured to contain a first encryption key (Summary and paragraphs [0026-0029]);

a radio configured to receive a message over a wireless network from a host and to transmit a subsequent message over the wireless network, the received message



Art Unit: 2136

encoded with the first encryption key and containing a second encryption key, the subsequent message encrypted with the second encryption key (Summary and paragraphs [0064, 0080-0081]);

a decryption unit configured to decrypt the received message with the first encryption key (Summary and paragraphs [0026-0029]);

at least one temporary key storage unit configured to store the second encryption key (Summary and paragraphs [0026-0029]).

Regarding Claims 58, 67 and 76, Abdo teaches and describes receiving a message over a wireless network from a host, the message encoded with a first encryption key and containing a second encryption key (Summary and paragraphs [0026-0029]);

decrypting the received message using the first encryption key, extracting the second encryption key (Summary and paragraphs [0026-0029]);

encrypting messages with the second encryption key; and sending the encrypted messages to the host (Summary and paragraphs [0026-0029]).

Claims 2 and 44 rejected as applied about in rejecting Claims 1 and 43. Furthermore, Abdo teaches and describes a decryption unit configured to decrypt the subsequent message received from the radio (paragraphs [0026-0029]).

Claim 48 is rejected as applied about in rejecting Claim 47. Furthermore, Abdo teaches and describes encryption unit configured to encrypt the subsequent message with the second encryption key (paragraphs [0026-0029]).

Claims 59, 68 and 78 are rejected as applied about in rejecting Claims 58, 67 and 77. Furthermore, Abdo teaches and describes storing the second encryption key in an encryption key storage unit (paragraphs [0064, 0080-0081]).

Claim 3 is rejected as applied about in rejecting Claim 2. Furthermore, Abdo teaches and describes a protocol management unit configured to convey the subsequent message to a host device (paragraphs [0026-0029]).

Claim 14, 25 and 36 are rejected as applied about in rejecting Claims 13, 24 and 35. Furthermore, Abdo teaches and describes decrypting the subsequent message with the first encryption key (paragraphs [0026-0029]).

Claims 86 and 49 are rejected as applied about in rejecting Claims 1 and 48. Furthermore, Abdo teaches and describes the radio is further configured to receive data messages over the wireless network from the host, the data message encoded with the second encryption key (paragraphs [0064, 0080-0081]).

Claim 45 is rejected as applied about in rejecting Claim 44. Furthermore, Abdo teaches and describes encrypt messages sent to the host with the second encryption key (paragraphs [0064, 0080-0081]).

Claims 15, 26, 37, 62, 71 and 81 are rejected as applied about in rejecting Claims 14, 25, 36, 61 and 70. Furthermore, Abdo teaches and describes wherein the second encryption key is symmetric (paragraphs [0064, 0080-0081]).

Claims 16, 27, 38, 61, 70 and 80 are rejected as applied about in rejecting Claims 15, 26, 37, 59, 68 and 78. Furthermore, Abdo teaches and describes wherein the first encryption key is symmetric (paragraphs [0026-0029]).

Claims 8, 17, 28, 39, 43, 56, 63, 72 and 82 are rejected as applied about in rejecting Claims 1, 12, 23, 34, 42, 47, 58, 67 and 76. Furthermore, Abdo teaches and describes wherein the second encryption key is a peripheral device encryption key (paragraphs [0026-0029]).

Claims 9, 18, 29, 40, 87, 88 and 89 are rejected as applied about in rejecting Claims 8, 12, 17, 23, 28, 34, and 39. Furthermore, Abdo teaches and describes wherein the first encryption key is a host device encryption key (paragraphs [0026-0029]).

Claims 10, 19, 30 and 41 are rejected as applied about in rejecting Claims 9, 18, 29 and 40. Furthermore, Abdo teaches and describes wherein the peripheral device encryption key is received by a host device via input by a user (paragraphs [0026-0029]).

Claims 20, 31, 42 and 77 are rejected as applied about in rejecting Claims 18, 29, 41 and 76. Furthermore, Abdo teaches and describes wherein the host device encryption key is stored within an encryption key storage unit (paragraphs [0026-0029]).

Claims 21, 32, 65, 74 and 84 are rejected as applied about in rejecting Claims 20, 29, 64, 73 and 83. Furthermore, Abdo teaches and describes wherein the encryption key storage unit that stores the host device encryption key is a read only memory (paragraphs [0026-0029]).

Claims 11, 22, 33, 46, 66, 75 and 85 are rejected as applied about in rejecting Claims 10, 21, 32, 45, 65, 73 and 84. Furthermore, Abdo teaches and describes wherein the protocol management unit is configured to convey the subsequent message to the host device via the Universal Serial Bus protocol (paragraphs [0028]).

Claims 57, 64, 73, 83, 90, 91, 92 and 93 are rejected as applied about in rejecting Claims 56, 58, 63, 67, 72, 76 and 82. Furthermore, Abdo teaches and describes wherein the second encryption key is a host device encryption key (paragraphs [0026-0029]).

### ***Conclusion***

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

Applicant is urged to consider the references. However, the references should be evaluated by what they suggest to one versed in the art, rather than by their specific disclosure. If applicants are aware of any better prior art than those are cited, they are required to bring the prior art to the attention of the examiner.

Art Unit: 2136

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 571-272-3866. The examiner can normally be reached on 8:00a.m. To 5:00p.m.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-232-3795. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pramila Parthasarathy

July 22, 2006.

CHRISTOPHER REVAK  
PRIMARY EXAMINER

CR 7/24/06